

AMENDMENTS TO THE CLAIMS

Please amend the claims as set forth below in marked-up form.

1. (Currently Amended) A data storage circuit characterized by providing a comparison section for reading out existing data stored in a storage element to compare said existing data and new data with each other prior to writing of said new data to said storage element, and configuring so that, in said comparison section, in a case where said existing existing data and said new data are identical with each other, the writing to said storage element is not performed, and in a case where said existing data and said new data are not identical with each other, said new data is written to said storage element; and

characterized by providing a control signal generating section for generating a readout control signal for performing readout control of said existing data and a write control signal for performing write control of said new data, and by configuring so that said existing data and said new data are compared with each other in said comparison section in accordance with said write control signal from said control signal generating section.

2. (Canceled)

3. (Currently Amended) A data writing method in a data storage circuit, characterized by:

performing a readout process of existing data stored in a storage element prior to performing a write process of new data to said storage element to compare said existing data and said new data with each other, so as not to perform the write process to said storage element, in a case where said existing existing data and said new data are identical with each other, and so as to perform the write process of said new data to said storage element in a case where said existing data and said new data are not identical

with each other; and

characterized by generating a readout control signal and a write control signal in accordance with a write signal input to said data storage circuit; reading out said existing data in accordance with said readout control signal; and comparing said existing data with said new data in accordance with said write control signal.

4. (Canceled)

5. (Currently Amended) A data storage device characterized by providing a comparison section for reading out existing data stored in a storage element to compare said existing data and new data with each other prior to writing of said new data to said storage element, and configuring so that, in said comparison section, in a case where said existing data and said new data are identical with each other, the writing to said storage element is not performed, and in a case where said existing data and said new data are not identical with each other, the writing of said new data to said storage element is performed;

characterized by providing a control signal generating section for generating a readout control signal for performing readout control of said existing data and a write control signal for performing write control of said new data, and by configuring so that said existing data and said new data are compared with each other in said comparison section in accordance with a control signal from said control signal generating section.

6. (Canceled)

7. (Currently Amended) The data storage device as described in ~~Claim 6~~Claim 5, characterized in that:

the comparison section is provided with a new data retention section for temporarily retaining the new data; an existing data retention section for temporarily

retaining the existing data; and a write enable signal generating section for comparing the new data retained in the new data retention section and the ~~existing~~ existing data retained in the existing data retention section with each other to control an output of the write enable signal,

the new data is temporarily retained in the new data retention section while the existing data is temporarily retained in the ~~existing~~ existing data retention section in accordance with the readout control signal output from the control signal generating section, and

the new data retained in the new data retention section and the existing data retained in the existing data retention section are compared with each other in accordance with the write control signal output from the control signal generating section.

8. (New) The data storage circuit according to claim 1, wherein said readout control signal and said write control signal are derived from a write signal input to said control signal generating section.

9. (New) The data storage circuit according to claim 8, wherein said control signal generating section includes an AND logic gate for generating said readout control signal according to a first readout generation signal and a second readout generation signal.

10. (New) The data storage circuit according to claim 8, wherein said control signal generating section includes a NOR logic gate for generating said write control signal according to a first write generation signal and a second write generation signal.

11. (New) The data storage device according to claim 7, wherein said new

data retention section and existing data retention section include input control transistors for controlling the retaining of the new data and the existing data in accordance with readout control signal.

12. (New) The data storage device according to claim 7, wherein the write enable signal generation section includes output control transistors for controlling comparison of the new data and the existing data in accordance with the write control signal.

13. (New) The data storage device according to claim 7, wherein the write enable signal generation section includes an XOR logic gate for generating a write enable signal in accordance with the new data and the existing data.